**CITY OF ASHEVILLE, NORTH CAROLINA**
**CLASS SPECIFICATION**

**GIS ANALYST**
**VARIOUS DEPARTMENTS**

## GENERAL STATEMENT OF DUTIES

Performs technical and administrative work in the development, implementation, and maintenance of City of Asheville Geographic Information System (GIS) projects. Work is performed under supervision of the GIS Coordinator or a department director with technical guidance from the GIS Coordinator in the Information Technology Department.

## DISTINGUISHING FEATURES OF THE CLASS

An employee in this class is responsible for assisting staff and management in the development, implementation, and maintenance of GIS projects and databases. Responsibilities include designing GIS databases and providing guidance with data quality assurance and database implementation. Responsibilities also include GIS automated application development, and technical assistance to staff and management using GIS technology. Work involves developing major geodatabase components of the City's GIS which may focus on water and stormwater utility infrastructures; public safety service areas; streets and addresses; physical, cultural, demographic, and economic features and phenomena. Work may also include supervising and assisting staff with field mapping efforts using Global Positioning System (GPS) and other types of field data collection equipment, and integrating the collected information into the City's GIS. Work is under general supervision by the GIS Coordinator or by a department director with technical guidance from the GIS Coordinator and is evaluated by conferences, reviewed through records and reports, and overall completeness and effectiveness of GIS projects, applications, and databases.

## ILLUSTRATIVE EXAMPLES OF WORK

**ESSENTIAL JOB FUNCTIONS**

Assists departmental staff and management to design, develop, and implement geodatabases and projects; trains and assists departmental staff in database and project usage and maintenance; provides technical assistance as needed.

Serves as a QA/QC liaison for departmental GIS Data Stewards; consults with the GIS Coordinator to assure that these geodatabases are current, meet City standards, are documented, indexed, and available to management, staff and citizens using the City's GIS.

Provides assistance and expertise in support of the design, update, and maintenance of departmental GIS data sets; utilizes industry standard notation and tools for database design, presentation, and schema updates.

Develops automated tools to facilitate GIS technology use by City staff; programs GIS software functions to automate standard procedures; integrates GIS software with other appropriate software to facilitate smooth work flows.

Provides day-to-day supervision, on an as-needed basis, of personnel using Global Positioning System (GPS) field equipment to collect and/or verify the accuracy of real-world features being represented in geodatabases.

Performs GIS data distribution, transfer, and sharing functions as appropriate and within the guidelines established by the Department and by the City of Asheville GIS Data and Map Distribution Policy and Procedure.

Provides technical assistance to related staff on GIS matters.

Works with Information Technology staff and the GIS Coordinator to ensure data file efficiency, security and recovery.

Provides input to various management committees, panels, commissions, etc, attending meetings and providing input based on expertise and observations, as appropriate.

Provides technical advice to and communicates GIS-related Departmental needs, initiatives, and issues to the GIS Coordinator as needed.

Communicates with the GIS Coordinator to develop budget requests for, acquire, install, and maintain licenses for all GIS-related software and GIS-related specialized equipment in use, as required.

## ADDITONAL JOB FUNCTIONS

Performs related work as required.

## <u>KNOWLEDGE, SKILLS AND ABILITIES</u>

Strong knowledge of modeling municipal systems, phenomena, and conditions for storage, access, analysis, and presentation using GIS technology.

Strong knowledge of geodatabase management within Microsoft Access and Microsoft SQL Server database environments, including Unified Modeling Language (UML) and Computer Aided Software Engineering (CASE) tools, such as MS Visio.

Strong knowledge of GIS data models and an understanding of how to design, analyze, and manipulate them.

Strong knowledge of GIS hardware and software, including ESRI's ArcGIS Family of Products (ArcSDE, ArcIMS, ArcGIS Desktop, and extensions).

Strong knowledge of programming languages as they relate to computer mapping techniques, including ESRI ArcObjects, Python, Microsoft Visual Basic for Applications (VBA), Visual Basic Script (VBS), and Microsoft .NET Framework. Considerable knowledge of applying these languages toward developing ArcGIS and ArcIMS applications.

Strong knowledge of geoprocessing technology.

Strong knowledge of the principles of geography as related to the earth's surface.

Strong knowledge of map preparation, computer aided mapping and illustration work.

Considerable knowledge of the North Carolina Technical Specifications for Base, Cadastral, and Digital Mapping.

Strong knowledge of Internet technology, including HTML

Considerable knowledge of local government practices and products.

Ability to effectively manage projects.
Ability to solve problems.
Ability to perform high level analysis in a complex environment.
Ability to carry out difficult written and oral instructions.
Ability to establish and maintain effective working relationships with others.
Ability to explain technical information to non-technical users and to tactfully deal with the public.
Ability to supervise the work of others.
Ability to express ideas effectively both orally and in writing.

## MINIMUM EXPERIENCE AND TRAINING

Bachelor's degree in computer science, geography, cartography, or related field, and 2 to 4 years of related experience, to include considerable experience with development of GIS automated applications and databases; and/or any equivalent combination of training and experience required to perform the essential position functions.

## COMPETENCIES

**Technical Competency:** Ability to use the tools and concepts of the specialty area in which the employee works. Includes using appropriate processes, procedures, resources, and work or professional standards.

**Interpersonal Competency:** Ability to work with people, develop and maintain work relationships, communicate, manage conflict, and perform as an effective team member.

**Intellectual Competency:** Ability to think, learn and process information. Ability to solve problems and gather necessary information. Includes having math and reading skills appropriate to job level.

**Customer Service:** Ability to identify customers, determine the valid needs of a situation, and provide service or service recovery in a manner that satisfies the customer.

**Organizational and Community Sensitivity:** Ability to take the larger perspective into account, recognize organizational and community priorities and balance actions appropriately.

**Physical Skills:** Ability to perform required jobs with adequate strength, dexterity, coordination and visual acuity (with reasonable accommodation[s] if needed) and in a manner that does not pose a direct threat to the health and safety of the employee or others in the workplace.

Salary Grade 21
Exempt